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EXAMINER

SAMS, MATTHEW C

ART UNIT

PAPER NUMBER

2617

DATE MAILED: 10/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/009,858	Applicant(s) RAAF, BERNHARD	
	Examiner Matthew C. Sams	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 25-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 25-32, 34-43 and 45-48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This office action is in response to the amendment filed on 7/6/2006.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 25-32, 36-43, 47 and 48 are rejected under 35 U.S.C. 102(e) as being anticipated by Uesugi et al. (EP 0 893,889 A2 hereinafter, Uesugi).

Regarding claim 25, Uesugi teaches a method for controlling the transmission power in a radio system (Abstract) comprising:

evaluating a signal received by a receiver via a transmission channel of the radio system from a transmitter; (Col. 12 lines 21-26)

producing power control information as a function of the signal; (Col. 12 line 57 through Col. 13 line 2)

sending the power control information, embedded in a time slot structure, to the transmitter; (Col. 12 lines 41-47)

setting the transmission power in the transmitter as function of the power control information; (Col. 12 line 57 through Col. 13 line 2)

coding, in the receiver, the power control information in a time slot, with the addition of redundancy, together with further data to be transmitted in the same time slot to form a common data word, with at least one bit value in the data word depending on the power control information and on the further data; and (Col. 19 lines 48-51 and Fig. 16B)

transmitting the power control information to the transmitter, together with the further data to be transmitted in the same time slot, wherein, during the coding process, at least one bit in the coded data word is assigned a value which corresponds to a logic operation between the power control information to be transmitted in the corresponding time slot and the information to be transmitted in the same time slot from the further data. (Fig. 16B and Col. 19 lines 48-51)

Regarding claim 26, Uesugi teaches the further data is data for format identification information. (Fig. 5 pilot symbol "P")

Regarding claim 27, Uesugi teaches the further data is user data. (Col. 8 line 34-38)

Regarding claim 28, Uesugi teaches the power control information is transmitted in binary form. (Col. 1 line 9)

Regarding claim 29, Uesugi teaches the bits in the power control word comprises a plurality of bits corresponding to a sum of the bits in the power control information and the bits in the further data. (Fig. 16B and Col. 19 lines 48-51)

Regarding claim 30, Uesugi teaches the coded data word comprises a plurality of bits corresponding to a sum of the bits in the power control information and the bits in the further data. (Fig. 11 and Col. 16 lines 37-40)

Regarding claim 31, Uesugi teaches that during the coding process, at least one bit in the coded data word is assigned a value of the power control information to be transmitted in the corresponding time slot. (Fig. 5A [TPC] and Col. 19 lines 48-51)

Regarding claim 32, Uesugi teaches that during the coding process, at least one bit in the coded data word is assigned a value of the power control information to be transmitted in the corresponding time slot from the further data. (Col. 19 lines 48-51)

Regarding claim 36, Uesugi teaches the receiver which produces the coded power control information is a base station in a mobile radio system and the transmitter which received the power control information and sets its transmission level appropriately is a mobile station in the mobile radio system, such that the coded power control information is transmitted via a downlink connection between the receiver and the transmitter. (Fig. 4, Fig. 7 and Col. 10 line 13 through Col. 11 line 47)

Regarding claim 37, Uesugi teaches a radio system comprising a transmitter (Fig. 4 [1105]), a receiver for receiving a signal from the transmitter (Fig. 4 [Base Station Side]), which is transmitted via a transmission channel of the mobile radio system and for evaluating the received signal to produce power control information (Col. 12 lines 21-26) which is dependant upon on the received signal and to send the power control information (Col. 12 lines 41-47 and Col. 12 line 57 through Col. 13 line 2), embedded in a time slot structure (Col. 12 lines 41-47), to the transmitter, wherein the transmitter sets transmission power as a function of the power control information from the receiver (Col. 12 line 57 through Col. 13 line 2), the receiver coding the power control information in a time slot, with the addition of redundancy, together with further data to be transmitted in the same time slot to form a common data word, with at least one bit

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value in the data word depending on the power control information and on the further data, (Col. 19 lines 48-51 and Fig. 16B) and transmitting the power control information to the transmitter, together with the further data to be transmitted in the same time slot, wherein, during the coding process, at least one bit in the coded data word is assigned a value which corresponds to a logic operation between the power control information to be transmitted in the corresponding time slot and the information to be transmitted in the same time slot from the further data. (Fig. 16B and Col. 19 lines 48-51)

Regarding claim 38, the limitations of claim 38 are rejected as being the same reason set forth above in claim 26.

Regarding claim 39, the limitations of claim 38 are rejected as being the same reason set forth above in claim 26.

Regarding claim 40, the limitations of claim 40 are rejected as being the same reason set forth above in claim 28.

Regarding claim 41, the limitations of claim 41 are rejected as being the same reason set forth above in claim 29.

Regarding claim 42, the limitations of claim 42 are rejected as being the same reason set forth above in claim 31.

Regarding claim 43, the limitations of claim 43 are rejected as being the same reason set forth above in claim 32.

Regarding claim 47, Uesugi teaches the radio system is a CDMA mobile radio system. (Col. 1 lines 15-27)

Regarding claim 48, the limitations of claim 48 are rejected as being the same reason set forth above in claim 36.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 34, 35, 45 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uesugi in view of Hogan (US 2001/0018741).

Regarding claim 34, Uesugi teaches the limitations of claim 25 above, but differs from the claimed invention by not explicitly reciting the use of an exclusive-OR operation as the logic operation used in the coding process for error recovery protection.

In an analogous art, Hogan teaches a method and apparatus for performing encryption and error coding correction that includes the usage of an exclusive-OR logic operation. (Page 1 [0012-0013] and Page 2 [0027]) At the time the invention was made, it would have been obvious to one of ordinary skill in the art to implement the method of power control of Uesugi after modifying it to incorporate the error coding correction of Hogan. One of ordinary skill in the art would have been motivated to do

this since it enables a simple error correction that reduces the need for retransmission of lost data. (Page 1 [0003 & 0006])

Regarding claim 35, Uesugi in view of Hogan teaches recovering the power control information in the transmitter via appropriated decoding, with an estimate value being determined for the power control information during the decoding process based on the value obtained by the logic operation from the corresponding bit in the coded data word. (Uesugi Col. 12 line 9 through Col. 13 line 17 and Hogan Page 1 [0012-0013] and Page 2 [0027])

Regarding claim 45, the limitations of claim 45 are rejected as being the same reason set forth above in claim 34.

Regarding claim 46, the limitations of claim 46 are rejected as being the same reason set forth above in claim 35.

Response to Arguments

7. Applicant's arguments with respect to claims 25-48 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew C. Sams whose telephone number is (571)272-8099. The examiner can normally be reached on M-F 7:30-5.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (571)272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MCS
10/16/2006


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